

The Stream Line

On Kentucky's State Revolving Fund (SRF) Program

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2012 SRF ranking being finalized, public meetings planned

The 2012 SRF Call for Projects period was opened Oct. 1, 2010-Jan. 4, 2011. DOW is finalizing the ranking for both CWSRF and DWSRF and public meetings are anticipated for July.

Only projects submitted during the Call for Projects period were considered in the ranking process.

The ranked list of projects will be included in each SRF program's Intended Use Plan (IUP) and will be invited to apply (in rank order) for the 2012 SRF funding.

public comment period for the drinking water IUP and clean water IUP is tentatively scheduled for later this month. A public meeting is anticipated next month for interested parties to discuss each program's plan for the upcoming 2012 funding cycle.

The 2012 funding includes the requirement that Davis Bacon federal wage rates be used in all eligible projects receiving SRF funding. It also requires that 20 percent of the capitalization grant must be used to fund green projects.

The target date for the 30-day

In addition, principal forgiveness

will be a part of the 2012 funding, though the percentage has not yet been determined.

For more information or updates on the 2012 funding cycle, check the DOW website (www.water.ky.gov) or the KIA website (www.kia.ky.gov).



CREAT software helps utilities assess climate change risks

EPA's Climate Resilience Evaluation & Awareness Tool (CREAT) is software for water and wastewater utilities to use when assessing the risks involved with potential climate change issues in their area.

According to the EPA website, CREAT "provides users with access to the most recent national assessment of climate change impacts for use in considering how these changes will impact utility operations and missions."

By allowing users to evaluate potential issues from climate change on their utility operations, CREAT helps evaluate adaptation options to address those impacts using both traditional risk assess-

ment and scenario-based decision making.

CREAT also guides users through the identification of threats based on regional differences in climate change projects and assists them in creating plans to adjust their operations and equipment based on the threats in that regional area.

CREAT also provides risk-reduction and cost reports that allow users to evaluate different options as part of their long-term planning.

For more information about CREAT, go to www.water.epa.gov/infrastructure/watersecurity/climate/creat.cfm

Stimulus funded projects update

In February 2009, the federal government passed a stimulus bill that provided over \$70 million in additional funding for 60 projects funded through Kentucky's two SRF programs. All the funding was committed to projects by February 17, 2010, and now those projects are winding down.

Nineteen (or 32 percent) of the projects are fully closed out and the majority of projects are expected to be finished by December 2011. As of March 25, 2011, \$54.6 million (or 78 percent) of the stimulus funds have been expended into Kentucky's economy on the approved projects.



Community Spotlight: Northern Kentucky

Northern Kentucky benefits from “green” innovation, ARRA funding

By Alison Simpson

If you’ve driven I-71/75 through northern Kentucky in the last six months, you’ve probably seen this project along the side of the interstate. Sanitation District #1’s (SD1) terraced reforestation project is one of seven green infrastructure projects in SD1’s first five-year plan addressing combined sewer overflows (CSO) in the area, in accordance with their consent decree with EPA and DOW.

The project includes the reforestation and construction of storm water management improvements in the existing open space of the I-71/75 right-of-way. It was designed to reduce the volume of runoff from a drainage area of approximately 20 acres that currently enters SD1’s combined sewer system. The runoff from this area contributes to the Willow Run combined sewer overflow (CSO), which is the largest CSO in the SD1 system. The improvements of this project include constructing a series of bioretention cells created along the hillside by installing vegetative berms and new tree plant-

ings, which will provide runoff volume reduction via intercepting, redirecting and absorbing storm water runoff. Twelve earthen terraces are being constructed with over 40 shrubs, 280 trees and native seedlings.

At a time when only a few utilities were looking into green infrastructure as a solution to alleviating CSO problems, SD1 became a leader in incorporating green projects into how they addressed their CSO issues.

“Green infrastructure was starting to get a lot of interest in the sewer utility district because the other traditional ways, such as big storage tanks or high rate treatment at an overflow point, were looking expensive,” explained former SD1 program manager Jim Turner. “People had been building them for a number of years and there was a general lack of happiness with those because they were expensive and didn’t offer a lot of additional benefits.”

The terraced reforestation project cost of \$834,241 is funded by the American Recovery and Reinvestment Act of 2009 (ARRA).



Photo courtesy of Sanitation District #1

Spraying water keeps down dust and helps to meet compaction requirements.

The ARRA funding was put in place to help shovel-ready projects get funded with 50 percent principal forgiveness. It requires that at least 20 percent of the capitalization grant be used to fund green projects. For SD1, the timing of the ARRA funding could not have been better.

When SD1 began putting together their watershed plans in 2007 to address the consent decree, they knew they wanted to incorporate green infrastructure into their project plans.

“The fact that the stimulus bill came out accelerated the projects,” explained Turner. “Without the stimulus bill, they may have happened later in the first five-year cycle or maybe the next five-year cycle.”

With stimulus funding came additional requirements, such as the Buy American Clause (ensuring all components of the project are constructed with American-made materials) and using Davis-Bacon wage rates (now a base program requirement). Still, Turner said the process was do-able.

“I thought it was a process that was manageable,” said Turner. “The ARRA projects had some additional paperwork and requirements, but I had some past experience with federal dollars going into a project, and

I’d seen the requirements for documentation before. So I didn’t feel they were overly burdensome. It did take time, but I think we managed that process pretty well.”

Community response to the project was initially inquisitive but overall positive. Because of the consent decree, SD1 had to address their CSO problems.

“I think the community was pretty understanding and supportive of the approach, that in northern Kentucky we are going to do our best to deal with these regulatory requirements and come up with novel approaches that provide multiple benefits and are cost effective... as opposed to going down the easier and more typical path, such as building facilities for high rate treatment,” said Turner. “Not that those are bad approaches, but they’re not always the most cost-effective way to go.”

He also pointed out that over the last few years, there have been more utilities using green infrastructure in the consent decree language.

“Kansas City, Cleveland, and Philadelphia all have plans for a CSO problem and Philadelphia in particular has a plan that is heavy on green work,” Turner said.



Photo courtesy of Sanitation District #1

Pictured above is a completed bioretention cell. The green material is geotextile, and straw wattles are staked into that to protect the bioretention cell.



(Continued from Community Spotlight, p. 2)

Jim Gibson of SD1 said that there will definitely be more green projects in SD1's future. "There are 60 projects in the CSO plan with over 90 green features identified," he said.

Within those projects are storm water separation projects that involve green components to treat the storm water runoff

before it is discharged to local waterways. Green infrastructure is being utilized to treat runoff at the source (e.g., green streets) and to treat runoff at a more regional level (e.g., biofiltration basins). Gibson said that SD1's long-term CSO plan extends to the year 2025.

Additional green projects in the first five-year plan of SD1's consent decree:

• Banklick Creek Regional Wetlands

Construction of six acres of wetland to improve water quality within Banklick Creek.

• Church Street Green Integration

Rehabilitation and replacement of existing combined sewers and incorporation of storm water management features that will decrease CSO volume and improve the public recreation value of the area.

• KYTC Basin Retrofit

Modification of an existing dry detention basin to function as an extended detention basin and thereby significantly reduce storm water discharge flow rates by 85 percent.

• Prisoner's Lake Rainwater Harvesting (project completed)

Construction of a small storm water pumping station and force main next to Prisoner's Lake, transferring water from the lake to a small irrigation pond, alleviating combined sewers in the adjacent watershed and reusing the water from the pond as irrigation during the dry months.

• St. Elizabeth Detention Basin Retrofit (project completed)

Modification of an existing dry detention basin and reduction of storm water peak flow rates by 71 percent and volume by 24 percent. To complement this project, the St. Elizabeth Medical Center installed a 20,000-square-foot green roof and 7,800 square feet of individual rain gardens.

• 12th Street Green Improvements

Incorporation of bioretention planter boxes and bioswale improvements into the design and construction of KYTC's 12th Street project in the City of Covington. The boxes capture over 30 percent of annual storm water runoff and the bioswale provides additional volume/peak flow reduction rates.

(Green project information taken from "Implementing a Green Infrastructure Plan" status update May 2010, www.sd1.org)

Hopkinsville utility manager recalls benefits of SRF over the years

Len Hale, general manager of the Hopkinsville Water Environment Authority (HWEA), addressed the board at the regular Kentucky Infrastructure Authority (KIA) Board Meeting on April 7, 2011, thanking them for their service to the Commonwealth and recounting the ways Hopkinsville has benefited from the SRF loan program.

He stated the HWEA received their first State Revolving Fund (SRF) loan from KIA in 1992. Over the following 20 years, KIA has helped HWEA grow and build their system in Christian County by receiving approval for 14 SRF projects. As a result, they have:

- Built a new 15 MGD regional water treatment plant (which serves 53,000 residents of Hopkinsville, Pembroke, Crofton, Christian County and South Hopkins, with interconnects with Trigg, Caldwell, Hopkins and Todd Counties).
- Built a new 16 MGD regional wastewater treatment plant (which serves Hopkinsville, Pembroke, Crofton, Christian County and Oak Grove).
- Built a new 30 MGD regional raw water system intake and 27-mile pipeline.
- Installed 130 miles of additional sewers.
- Consolidated four municipal water and sewer systems.
- Eliminated two existing treatment plants and discharges with two more scheduled to be eliminated in the next three to five years.
- Eliminated over 4,780 septic tanks.
- Will be eliminating approximately 400 more septic tanks as

a result of the projects approved at the April board meeting.

As a result of the SRF funding, HWEA also achieved its goal of adding generators to run the treatment plants, pump stations and booster stations in the case of a power disruption. In fact, a tornado on April 5, 2011, destroyed power lines serving Commerce Industrial Park and Pembroke. HWEA was up immediately and providing needed water service to the Pembroke and Commerce Park.

Hale stated there are approximately 75,000 people in Christian County whose lives have been improved through the efforts of the KIA and the SRF loan program. Although over \$70 million has been loaned to HWEA, because of the low-interest rates historically provided by HWEA, water and sewer rates continue to be low compared to the state average and provides a low "affordability index" to its customers. All of this progress economically and environmentally was possible because of the KIA SRF program.

Hale said he had heard through the years that the SRF program was a cumbersome system, difficult to work through and very bureaucratic. HWEA has found that not to be so. Hale praised the KIA staff because of their knowledge and their willingness to always help them when needed. He also stated that early on there weren't a lot of municipalities wanting SRF funding, making it more available. But lately there has been more competition.

Hale thanked the KIA Board for its management and administration of the SRF loan program, both personally and as a member of one of the many communities in the Commonwealth that has greatly benefited as a result of this program.



News You Can Use

SRF Binding Commitments, February to May 2011

February 2011

Fund A (Clean Water)

- City of Louisa \$1,400,000
- City of Campton \$1,400,000
- City of Hardinsburg \$400,000
- City of Morehead \$3,000,000

Fund F (Drinking Water)

- City of Hardinsburg \$4,000,000
- Breathitt Co. Water District \$2,282,500

March 2011

Fund A (Clean Water)

- City of Flemingsburg \$8,906,000
- City of Williamsburg \$1,035,517
- City of Vanceburg \$2,000,000
- City of Louisville Jefferson Co MSD \$3,400,000

Fund F (Drinking Water)

- City of Williamstown \$2,250,000

April 2011

Fund A (Clean Water)

- Hopkinsville HWEA \$500,000
- Hopkinsville HWEA \$7,100,000
- Hopkinsville HWEA \$26,641,000

Fund F (Drinking Water)

- Bullock Pen Water District \$1,633,000
- Brandenburg \$2,080,000
- West Liberty \$3,050,300

May 2011

Fund A (Clean Water)

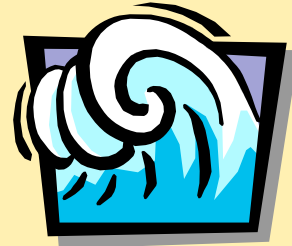
- City of Pineville, \$500,000 (A1 loan)
- No. Kentucky Sanitation District No. 1, \$15,187,500
- No. Kentucky Sanitation District No. 1, \$14,188,155
- No. Kentucky Sanitation District No. 1, \$7,788,000
- City of West Liberty, \$3,937,950

Fund F (Drinking Water)

- City of West Liberty, \$3,050,300
- City of Barbourville/Barbourville Utility Commission, \$4,000,000
- City of Barlow, \$230,000

Correction

The December 2010 issue incorrectly credited Tetra Tech, Inc. with the photo on page 2 about the Centertown water line upgrades and tank project. The photo credit should have gone to the Green River Area Development District.



The Stream Line

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